VICOR CUSTOM NORTHWEST POWER

Data Sheet

*Power*Bank
PB1005AC(-F)(-G)(-H)(-HE)

AC/DC Power Supply
Up to 5 Outputs
1000W
Low-Profile 1.68"

All specifications are at nominal input, full load, 25°C, all models, unless otherwise noted.

Input

Model	-F	-G	-H	-HE
Nominal Input Voltage	115VAC[1]	115/230 VAC	230VAC/300VDC	230VAC
Input Voltage Range	95-132VAC	95-132VAC or 180-264VAC	180-264VAC or 250-375VDC	180-264VAC
AC Input Frequency	47-440Hz	47-440Hz	47-440Hz	47-440Hz
Voltage Sag Immunity to SEMI F47-0200	No	No	No	Yes
Hold-Up Time (Max Load, Nominal Line, Typical)	20 ms	20 ms	20ms	30ms
Input Fuse (Internal)	20 A	15 A	20A	20A
Inrush Current (264 VAC peak line, cold start.)	30Apk,max	30Apk,max	200Apk,typical	200Apk,typical
Power Factor (typical)	0.60			

Output [2]

Output #	A	B	C	D	E
Maximum Output Current (Connector Limit)	80A		18A	40A	
Output Voltage (Factory configurable)	1.8 to 52V		1.8 to 52V		
Output Voltage Setpoint (50% load)	±1.2%		±1.2%		
Load Regulation, No load to full load (max.)	±0.2%		±0.5%		
Line Regulation, Low Line to High Line (max.)	±0.2%		±0.5%		
Maximum Output Power	500W		150W		
Remote Sense	Yes		No		
Output Ripple and Noise	See individual Vicor modules specifications.				
Enable/inhibit function will affect this output	Yes or No (Configurable for each output individually at the factory.)				
Trim range	10% to 110% of module nominal Vo[3]		N/A		

Environmental

Operating Temperature Range	-20°C to 70°C
Storage Temperature Range	-40°C to 70°C
Relative Humidity	5% -95% non-condensing

Safety

Safety	**Important (!): Does not apply to (-F) operating at 230VAC**		
Agency Approvals	cTUVus, CE		
Safety Standard Compliance	EN60950		
Isolation	Primary-to-Secondary	Primary-Earth	Secondary-Earth
	3,000Vrms	1,500Vrms	250Vrms

---

[1] Model -F will operate at 230VAC, but operation at 230VAC has not been evaluated for safety purposes.

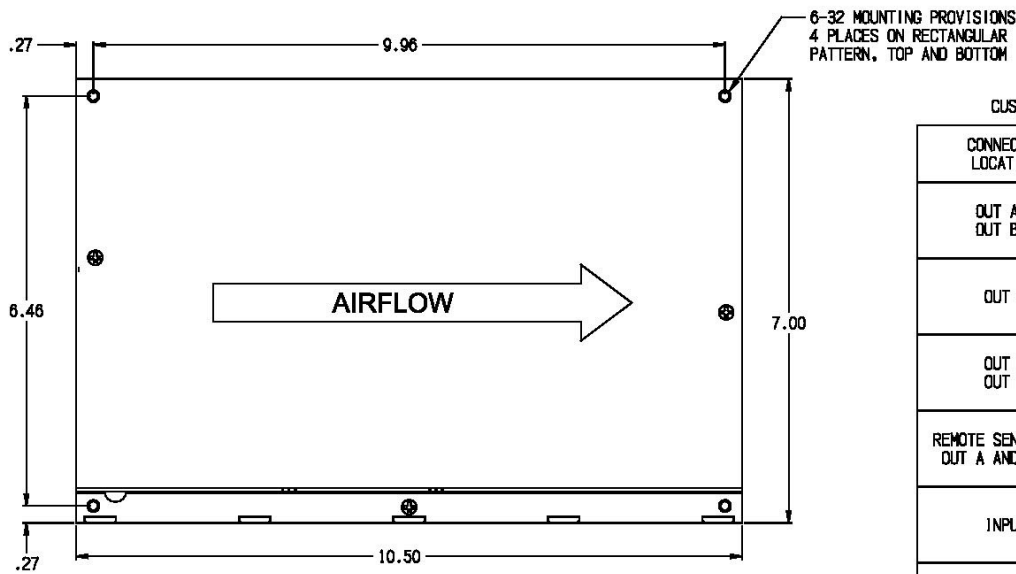[2] Output voltage, current and power are limited to Vicor modules available.

[3] Minimum load may be required to trim below 90%. Contact factory for details.

Northwest Power, Inc.
(503)-652-6161
www.npi-inc.com

Document No. 6997 Rev H
Print Date: 2014-05-19
Page 1 of 4

PB1005AC(-F)(-G)(-H)(-HE)

EMI and EMC

Conducted Noise	EN55022 Class A (150kHz-30MHz)

Mechanical

Dimensions	10.5" x 7" x 1.68"
Cooling	Internal Fans
Weight (Typical, depends on configuration)	6.6 lb. (3 kg)

Maximum Output Power vs. Ambient Air Temperature

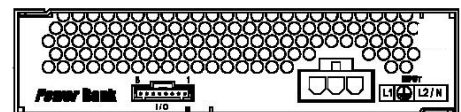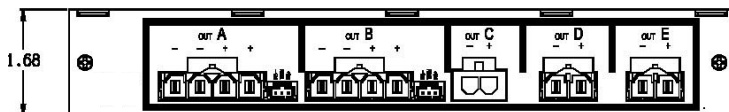| Model	Input Voltage	-20 to 60°C	60 to 70°C	70°C
-F	115 VAC	800 W	800W	800W
-G	115 VAC	600 W	600W	600W
-G	230 VAC	1,000 W	Derate 20W/°C	800W
-H	230 VAC or 300 VDC	1,000 W	Derate 20W/°C	800W
-HE	230 VAC	1,000 W	Derate 20W/°C	800W

Mechanical Outline Drawing

CUSTOMER INTERCONNECT INFORMATION

CONNECTOR LOCATION	CONNECTOR IDENTIFICATION
OUT A * OUT B *	MFR. MOLEX TYPE MINIFIT SR. PN 42820-4212
OUT C	MFR. MOLEX TYPE SABRE PN 43160-3102
OUT D OUT E	MFR. MOLEX TYPE MINIFIT SR. PN 42820-2212
REMOTE SENSE/TRIM OUT A AND OUT B	MFR. MOLEX TYPE SINGLE ROW .100" PITCH PN 70555-0037
INPUT	MFR. MOLEX TYPE SABRE PN 43160-3103
I/O	MFR. MOLEX TYPE SINGLE ROW .100" PITCH PN 70555-0042

* OUTPUTS A AND B CAN OPTIONALLY BE CONFIGURED WITH BUS BARS. RING TONGUE AND WIRE GAGE SHOULD BE SIZED TO MEET EXPECTED OUTPUT CURRENT

Connections

Input

Pin	Signal Description or Symbol	Details
1	L1	AC Line 1
2	⏚	Safety Ground
3	L2 / N	AC Line 2 or Neutral

Outputs A and B

Pin	Signal Description	Details		
		Option -M	Option -B	Option -R
1	**+**	Positive Terminal, 49A max	Positive Terminal 1/4" hole, 100A max	Positive Terminal #8 tapped hole 5/16" deep, 100A max
2	**+**	Positive Terminal, 49A max		
3	**-**	Negative Terminal, 49A max	Negative Terminal 1/4" hole, 100A max	Negative Terminal #8 tapped hole 5/16" deep, 100A max
4	**-**	Negative Terminal, 49A max		

Outputs A and B - Remote Sense/Trim Connector

Pin	Signal Description	Details
1	**+**	Positive Sense Connection
2	**Trim**	Trim input
3	**-**	Negative Sense Connection

Output C

Pin	Signal Description	Details
1	**-**	Negative Terminal, 18A max
2	**+**	Positive Terminal, 18A max

Outputs D and E

Pin	Signal Description	Details
1	**+**	Positive Terminal, 20A max
2	**-**	Negative Terminal, 20A max

I/O Connections

Note: All control signals are isolated; Input - 3,000 Vrms; Output - 250 Vrms; Chassis - 250 Vrms

Pin	Signal Description	Details	
		Option -N	Option -E
1	Output Inhibit or Enable	Application of 5V to 24V signal inhibits all controlled outputs. Optoisolator input with 4.5kΩ series resistor.	Application of 5V to 24V signal enables all controlled outputs. Optoisolator input with 4.5kΩ series resistor.
2	Not Connected	Reserved for future use.	
3	Output A Power Good	Open Collector, 60V/1mA, Active Low = Power Good	
4	Output B Power Good	Open Collector, 60V/1mA, Active Low = Power Good	
5	Output C Power Good	Open Collector, 60V/1mA, Active Low = Power Good	
6	Output D Power Good	Open Collector, 60V/1mA, Active Low = Power Good	
7	Output E Power Good	Open Collector, 60V/1mA, Active Low = Power Good	
8	I/O Control Signal Return	All I/O control signals on pins 1-7 are referenced to this pin.	

Northwest Power, Inc.
(503)-652-6161
www.npi-inc.com

Document No. 6997 Rev H
Print Date: 2014-05-19
Page 3 of 4

PB1005AC(-F)(-G)(-H)(-HE)

Vicor Custom Northwest Power designs and manufactures custom and standard power supplies using Vicor modules as core components.

Specifications are subject to change without notice.

Northwest Power, Inc.
4211 SE International Way, Suite F
Milwaukie, OR, USA
Tel: 503-652-6161
Fax: 503-652-6868
www.npi-inc.com